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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,068

06/05/2006

Alfred Kruse

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03/23/2009

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EXAMINER

WALTERS JR, ROBERT S

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,068	<b>Applicant(s)</b> KRUSE ET AL.	
	<b>Examiner</b> ROBERT S. WALTERS JR	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 8-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 8-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of Application***

Claims 3-7 are cancelled. Claims 1, 2 and 8-19 are pending and presented for examination.

### ***Response to Arguments***

Applicant's arguments filed 12/29/2008 have been fully considered but they are not persuasive. The applicant argues that Wozniak neither teaches nor suggests lower amounts of non-ionic solvent (ethyldiglycol) and that the recited range of ethyldiglycol in the claims is therefore not obvious over Wozniak. The examiner disagrees with this contention. While Wozniak provides various examples of compositions that have ethyldiglycol outside of the ranges as claimed, Wozniak also states that the proportion of the secondary plasticizer solvent [non-ionic solvent] is adjusted to accomplish its function in the formulations. Therefore, given that Wozniak actually suggests adjusting the concentration of ethyldiglycol, it would have been obvious to one of ordinary skill in the art at the time of the invention to choose the claimed ranges through process optimization.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-2, 8-10, 14-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wozniak (U.S. Pat. No. 4851464).

I. Regarding claims 1-2 and 8, Wozniak teaches an adhesion promoter/plasticizer composition for plastisol compositions (abstract) comprising a polyaminoamide (abstract) as well as a secondary non-ionic solvent (abstract) which may be ethyldiglycol (column 3, lines 21-35). Wozniak teaches that these two elements are combined (which would provide the adhesion

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promoter as claimed) with a primary plasticizer and this promoter/plasticizer mixture is added to polyvinyl chloride to eventually provide the final plastisol composition (see abstract). Wozniak fails to teach the adhesion promoter being composed specifically of 10-60%, 25-55%, or 40-50% ethyldiglycol by weight of the total weight of the adhesion promoter. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to choose the instantly claimed ranges through process optimization, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See In re Boesch, 205 USPQ 215 (CCPA 1980).

II. Regarding claims 9-10, Wozniak teaches the adhesion promoter of claim 1 as described above and further teaches plastisol compositions comprising that adhesion promoter as well as finely divided vinyl chloride copolymers (column 3, lines 36-39) and conventional plasticizers (column 3, lines 39-41), fillers (column 3, lines 46-50), and additives (column 3, lines 55-60).

III. Regarding claims 14-15, Wozniak teaches a method for improving the adhesion of a plastisol composition to a substrate by adding to the plastisol composition an adhesion promoter comprising a polyaminoamide and ethyldiglycol (column 2, lines 7-22 and column 3, lines 21-35). Wozniak fails to teach the adhesion promoter being composed specifically of 10-60% or 25-55% ethyldiglycol by weight of the total weight of the adhesion promoter. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to choose the instantly claimed ranges through process optimization, since it has been held that where the

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general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See In re Boesch, 205 USPQ 215 (CCPA 1980).

IV. Regarding claim 17, Wozniak teaches the adhesion promoter of claim 1 as described above and further teaches a method of coating by using the adhesion promoter described above (see Example 6 specifically) and adding it to a plastisol composition comprising polyvinyl chloride to form a mixture, homogenizing the mixture (see column 7, lines 9-10), applying the mixture to a substrate and heating at 121°C (column 10, lines 30-36).

2. Claims 11-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wozniak in view of Leoni et al. (U.S. Pat. No. 4717746).

Regarding claims 11-13 and 16, Wozniak teaches all the elements required by the claims (see above) but fails to teach the addition of the adhesion promoter in an amount from 0.3-5%, 0.5-2%, or 1% by weight based on the weight of the plastisol. It is well known in the art to use the adhesion promoter in a low percentage by weight as compared to the total weight of the plastisol, normally the adhesion promoter is provided at around 1-5% by weight. For example, Leoni specifically teaches the use of an adhesion promoter comprising a polyaminoamide in 1% by weight of a plastisol composition (column 4, lines 52-60). It should be noted that Leoni further teaches that a solvent may be added with the adhesion promoter (column 2, lines 15-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to add Wozniak's adhesion promoter composition in an amount of 1% by weight to the plastisol

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composition. One would have been motivated to make this modification as one of ordinary skill in the art at the time of the invention could have made this modification with a reasonable expectation of success and with the expected result of providing a means for increasing the adhesion of a plastisol to a substrate. Alternatively, it would have been obvious to one of ordinary skill in the art at the time of the invention to choose the instantly claimed ranges through process optimization, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See In re Boesch, 205 USPQ 215 (CCPA 1980).

3. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wozniak in view of Burba et al. (U.S. Pat. No. 4440900).

Regarding claims 18 and 19, Wozniak teaches a process for producing a plastisol (abstract) by adding an adhesion promoter according to claim 1 (see above) to a plastisol composition comprising vinyl chloride copolymers to form a mixture and homogenizing that mixture to give the plastisol (see Rejection 1 IV above). Wozniak fails to explicitly teach producing a self-adhesive plastisol and adding the adhesion promoter in an amount of from 0.3-5% by weight. However, Burba teaches the use of an adhesion promoter comprised of a polyaminoamide from 0.5 to 5% by weight in a similar plastisol composition (column 2, lines 16-52). Burba further teaches that this adhesion promoter can be readily added to commonly used plastisol formulations to provide a self-adhesive plastisol (column 7, lines 16-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify

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Wozniak's process to add the adhesion promoter to a common self-adhesive formulation in 0.3-5% by weight to provide a self-adhesive plastisol. One would have been motivated to make this modification as this would allow the plastisol to be coated and bond well to unprimed surfaces and would no longer necessarily require a primed surface to enable effective bonding.

### ***Conclusion***

Claims 1-2 and 8-19 are pending.

Claims 1-2 and 8-19 are rejected.

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT S. WALTERS JR whose telephone number is



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(571)270-5351. The examiner can normally be reached on Monday-Friday, 8:00am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/  
Supervisory Patent Examiner, Art Unit  
1792

/ROBERT S. WALTERS JR/  
March 16, 2009  
Examiner, Art Unit 1792